NC/QC/YD/2020-21/W4-AB-C1 Date: 26-05-2020

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	156 min	Shall not be less than 30 min
2	Final setting time	265min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	2.15%	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	2.09mm	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	28.72 N/Sq mm	Shall not be less than 27 N/Sqmm

NEWZEN CONSULTANT * BANGALORE *

Page No. 1/1,

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

NC/QC/YD/2020-21/W4-AB-PCC1

Date: 26-05-2020

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.

{Project*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	100.00	85-100	90 – 100
20mm	66.15	0 -20	30- 70
10mm	32.40	0 -5	10- 35
4.75mm	4.15	-----	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	98.70	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	86.25	60-95	75-100	85-100	
01.18	72.05	30-70	55-90	75-100	
600.mic	46.45	15-34	35-59	60-79	
300.mic	22.15	5-20	8-30	12-40	
150.mic	7.80	0-10	0-10	0-10	

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ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/W4-AB-C2 Date: 28-05-2020

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**152min**	Shall not be less than 30 min
2	Final setting time	**270min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**2.06 %**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**2.12 mm**	Shall not be more than 10 mm
5	Compressive strength b) 3 days (average of three results)	**28.42 N/Sq mm**	Shall not be less than 27 N/Sqmm

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NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
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NC/QC/YD/2020-21/W4-AB-PCC2 Date: 28-05-2020

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
{Project*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	100.00	85-100	90 – 100
20mm	59.35	0 -20	30- 70
10mm	29.60	0 -5	10- 35
4.75mm	4.05	------	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	97.80	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	89.05	60-95	75-100	85-100	
01.18	72.35	30-70	55-90	75-100	
600.mic	49.60	15-34	35-59	60-79	
300.mic	23.20	5-20	8-30	12-40	
150.mic	8.90	0-10	0-10	0-10	

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JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187

'QC/YD/2020-21/W4-AB-S1 Date: 03-06-2020

'EST REPORT ON REINFORCEMENT STEEL:

b: Testing of Reinforcement Steel of diameter 8, 10 and 12 mm TMT Steel.

roject*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}

ef.: Material testing/PMC/20-21,

eport Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

lame of the Agency/Contractor*: G. Venkategowda, Bangalore.

TABLE – 1

Details	For 8 mm		For 10 mm	
	Test Results	Min Req as per IS 1786-2008	Test Results	Min Req as per IS 1786-2008
Observed diameter of bar	8.0 mm	8.0 mm	10.0 mm	10.0 mm
Observed Wt/m Length Kg/m	0.393	0.363	0.621	0.567
Proof stress/Yield stress, fy , N/mm^2	560.0	500.0	5560.0	500.0
Bend/ Re bend Test	Ok	---	Ok	---
Percentage of Elongation, %	19.80	16.00	20.60	16.00
Ultimate Tensile Strength N/mm^2	646.0	565.0	641.0	565.0

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10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,

C/QC/YD/2020-21/W4-AB-CB1 Date: 12-06-2020

. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
Project*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	05-06-20	12-06-20	07	22500	370	16.44	16.67
	002	"	"	"	"	380	16.89	
	003	"	"	"	"	375	16.67	

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#13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
080 23240187

NC/QC/YD/2020-21/W4-AB-CB5 Date: 19-06-2020

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).

{Project*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	12-06-20	19-06-20	07	22500	375	16.67	16.74
	002	"	"	"	"	385	17.11	
	003	"	"	"	"	370	16.44	

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Page No. 1/1,

iC/QC/YD/2020-21/W4-AB-CB1A Date: 03-07-2020

. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).

Project*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	05-06-20	03-07-20	28	22500	505	22.44	22.59
	002	"	"	"	"	520	23.11	
	003	"	"	"	"	500	22.22	

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ಪಿ.ಪಿ.ಎಂ.ಸಿ. ಬೆಂಗಳೂರು-10

Date: 09-07-2020

C/QC/YD/2020-21/W4-AB-CB4A

TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).
{Project*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}

Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	11-06-20	09-07-20	28	22500	525	23.33	22.96
	002	"	"	"	"	515	22.89	
	003	"	"	"	"	510	22.67	

NEWZEN CONSULTANT * BANGALORE *

TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
723620231, 080 23240187

NC/QC/YD/2020-21/W4-AB-K1

Date: 20-06-2020

TEST REPORT

Sub: Testing of Pre-cast Material-Kerb Stones.
{Project*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

1. PHYSICAL TESTS ON KERB STONES :

Sl No.	Identification	Flexural strength, fcr in N/sqmm	Characteristic Compressive Strength, fck in N/sqmm	Avg. Characteristic. Compressive Strength fck in N/sqmm	Remarks
1	001	3.31	22.40	22.98	As per Cl. 6.2.2 of IS 456-2000, fcr=0.7√ fck
2	002	3.39	23.45		
3	003	3.36	23.10		

2. WATER ABSORPTION TEST

Sl No	Identification	Water absorption %	Average value %
1	001	4.59	4.64
2	002	4.71	
3	003	4.64	

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ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-106

NC/QC/YD/2020-21/W4-AB-K3

Date: 26-06-2020

TEST REPORT

Sub: Testing of Pre-cast Material-Kerb Stones.
{Project*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

1. PHYSICAL TESTS ON KERB STONES :

Sl No.	Identification	Flexural strength, fcr in N/sqmm	Characteristic Compressive Strength, fck in N/sqmm	Avg. Characteristic. Compressive Strength fck in N/sqmm	Remarks
1	001	3.35	22.95	22.83	As per Cl. 6.2.2 of IS 456-2000, fcr=0.7√ fck
2	002	3.29	22.10		
3	003	3.39	23.45		

2. WATER ABSORPTION TEST

Sl No	Identification	Water absorption %	Average value %
1	001	4.49	4.49
2	002	4.38	
3	003	4.61	

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ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
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NEWZEN CONSULTANT BANGALORE

NC/QC/YD/2020-21/W4-AB-K4 Date: 29-06-2020

TEST REPORT

Sub: Testing of Pre-cast Material-Kerb Stones.
{Project*: Improvements to roads and drains at AMS layout and Judicial Layout in ward no-03 and 04 of Yelahanka Satellite Town Sub Division (Package -2).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

1. PHYSICAL TESTS ON KERB STONES :

Sl No.	Identification	Flexural strength, fcr in N/sqmm	Characteristic Compressive Strength, fck in N/sqmm	Avg. Characteristic. Compressive Strength fck in N/sqmm	Remarks
1	001	3.36	23.15	23.16	As per Cl. 6.2.2 of IS 456-2000, fcr=0.7√ fck
2	002	3.33	22.70		
3	003	3.40	23.65		

2. WATER ABSORPTION TEST

Sl No	Identification	Water absorption %	Average value %
1	001	4.56	4.13
2	002	4.34	
3	003	4.49	

NEWZEN CONSULTANT * BANGALORE *

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ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

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